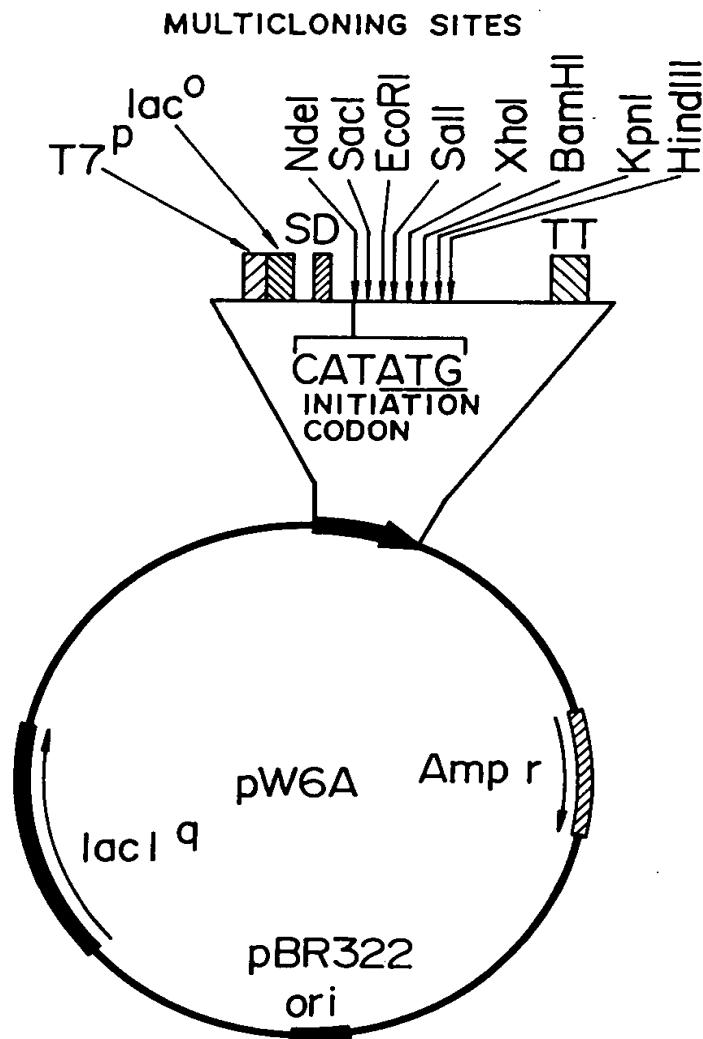


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FIG. I

DETAILED DIAGRAM OF EXPRESSION VECTOR pW6A



T7^p : T7 PROMOTER

lac^O : lac OPERATOR

SD : SHINE-DALGARNO SEQUENCE

TT : T7 TRANSCRIPTIONAL TERMINATOR

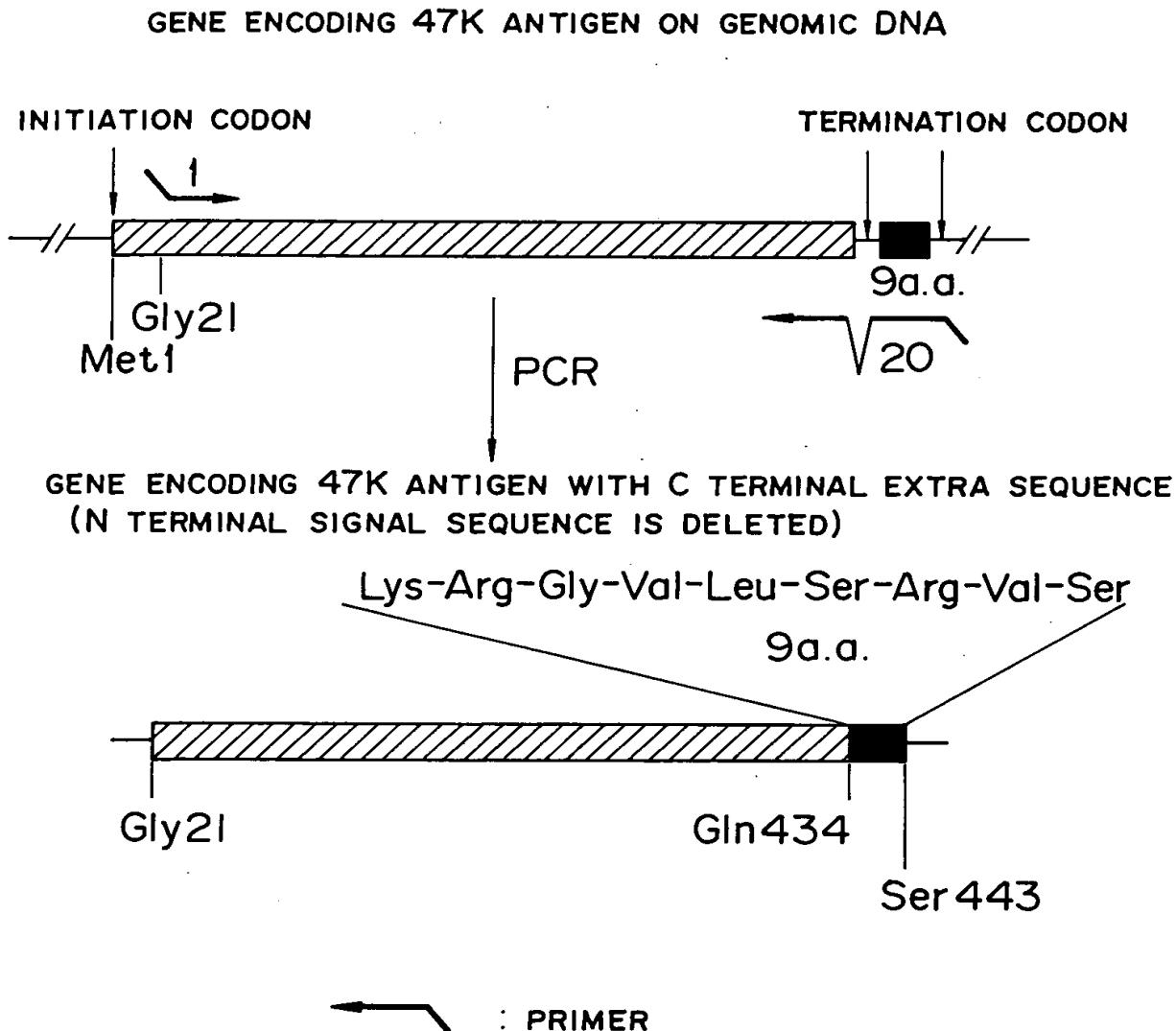
Amp r : β LACTAMASE

lac I^q : lac REPRESSOR

pBR322 ori : REPLICATION ORIGIN

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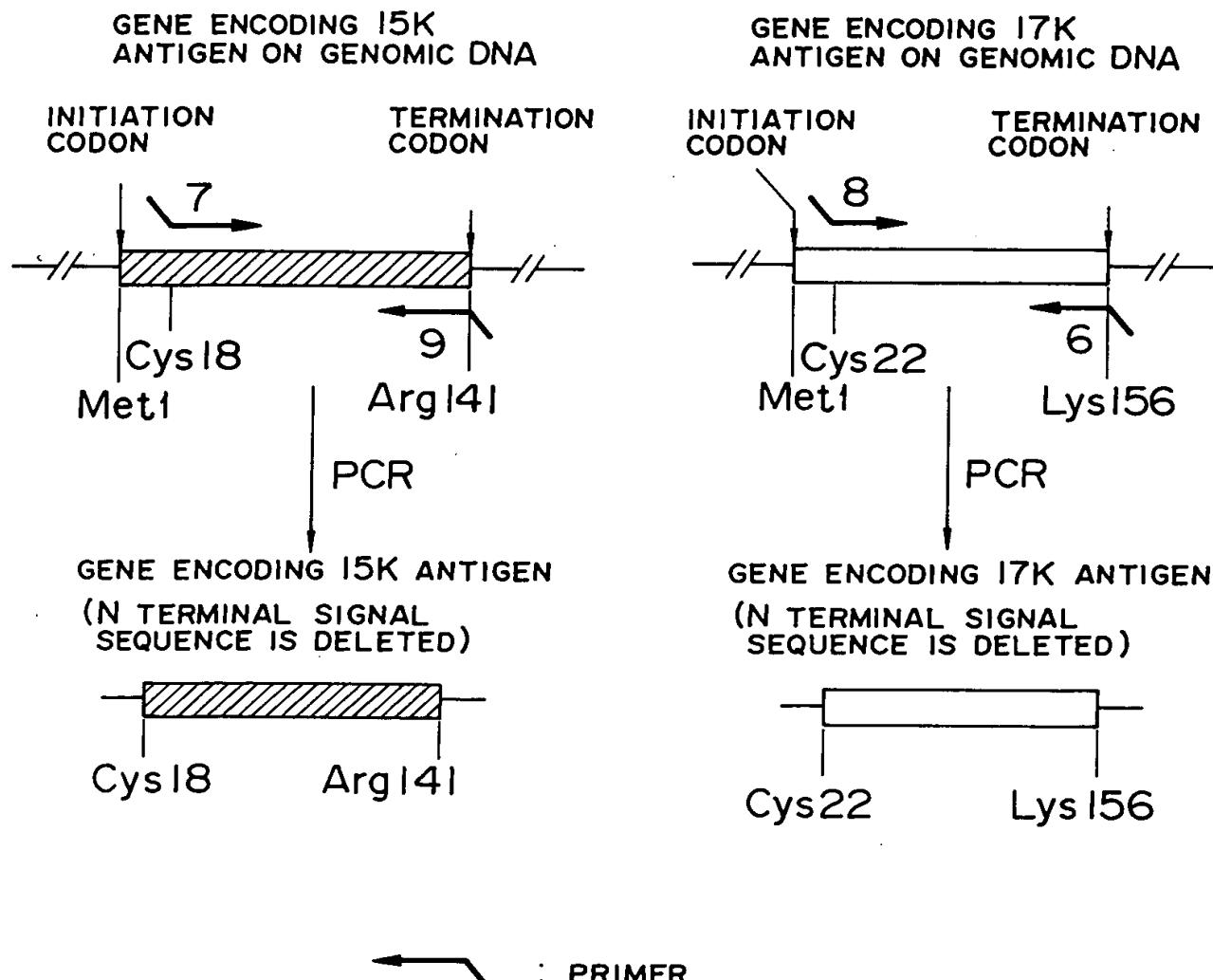
FIG. 2
PREPARATION OF GENE ENCODING 47K ANTIGEN



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FIG. 3

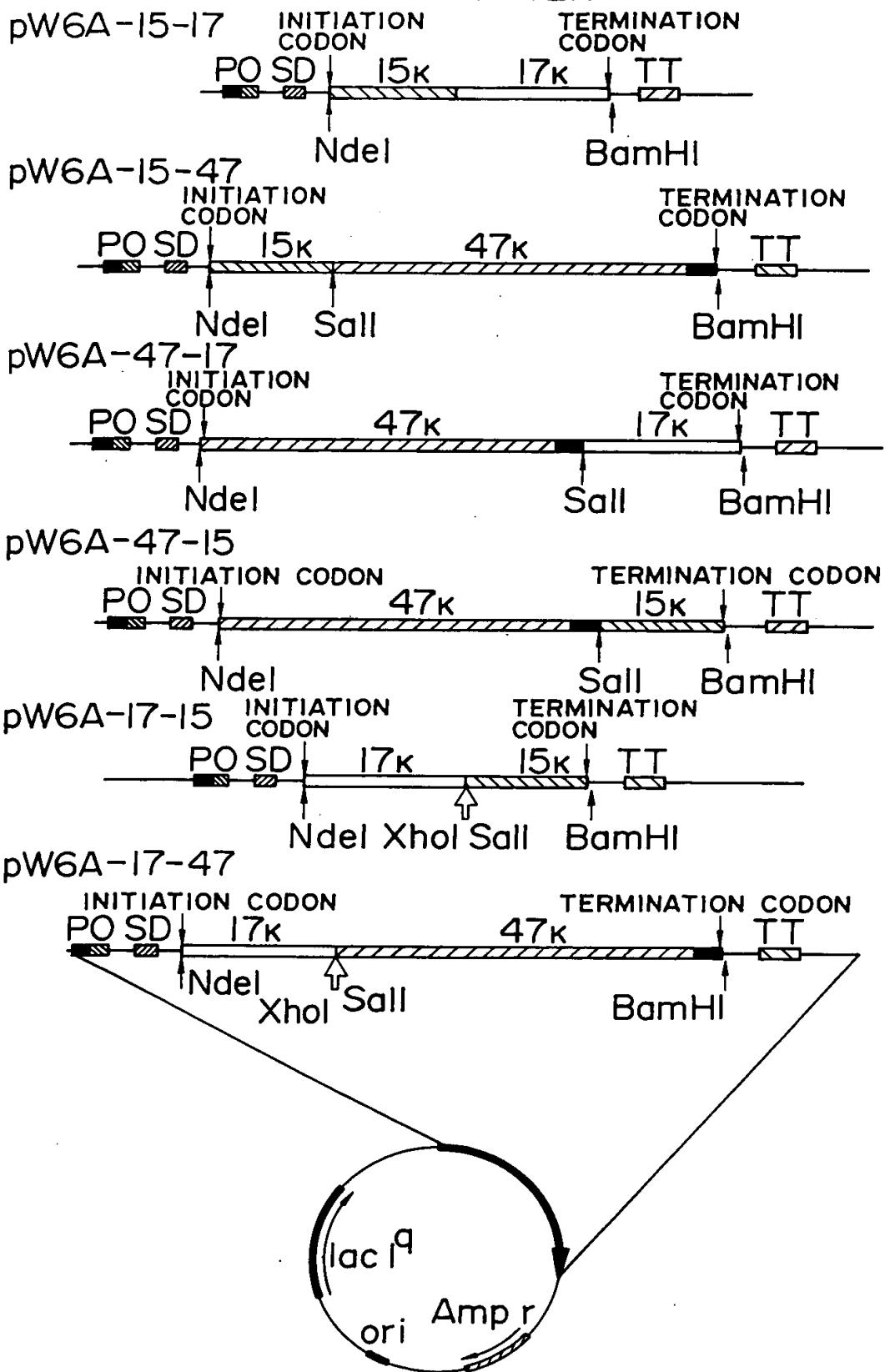
PREPARATION OF GENE ENCODING 15K ANTIGEN AND 17K ANTIGEN



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F I G. 4

DETAILED DIAGRAM OF EXPRESSION VECTOR FOR
TWO-ANTIGEN FUSED ANTIGEN

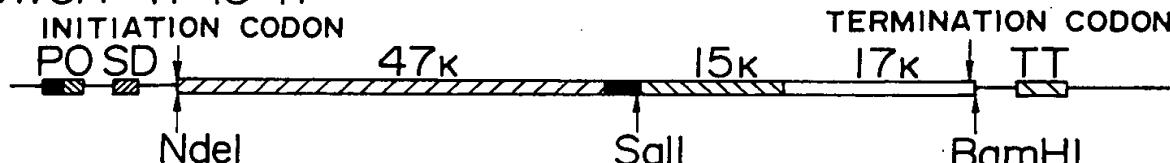


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FIG. 5

DETAILED DIAGRAM OF EXPRESSION VECTOR FOR THREE-ANTIGEN FUSED ANTIGEN

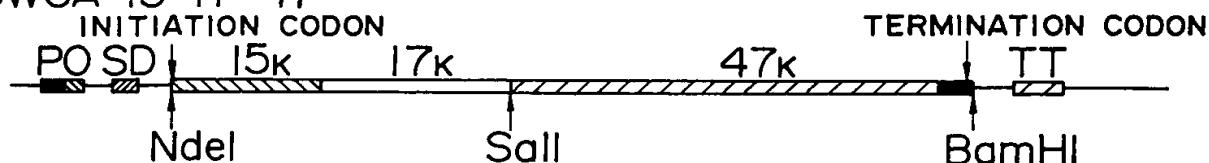
pW6A-47-15-17



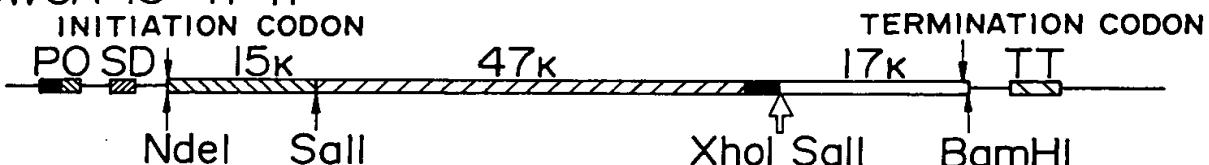
pW6A-47-17-15



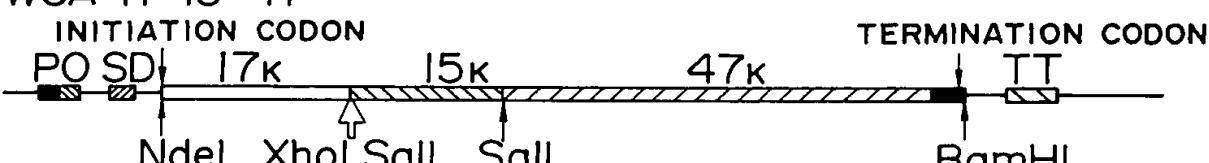
pW6A-15-17-47



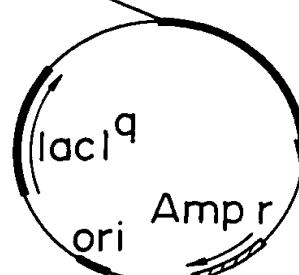
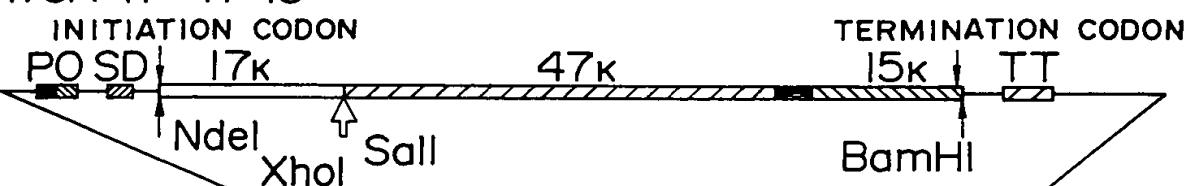
pW6A-15-47-17



pW6A-17-15-47



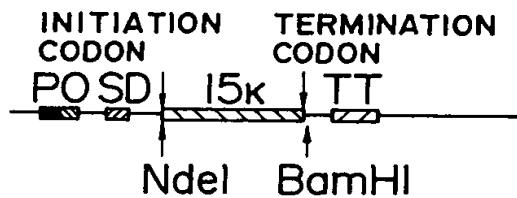
pW6A-17-47-15



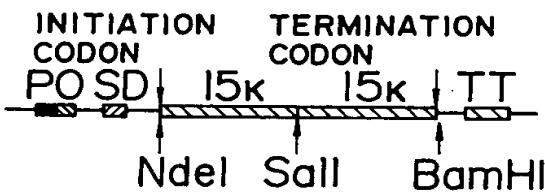
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FIG. 6

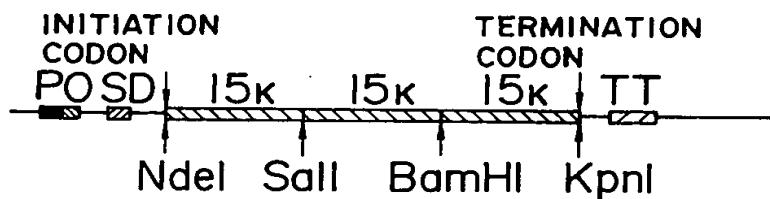
pW6A-15



pW6A-15-15



pW6A-15-15-15



pW6A-15-15-15-15

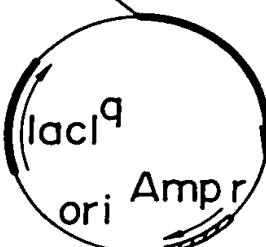
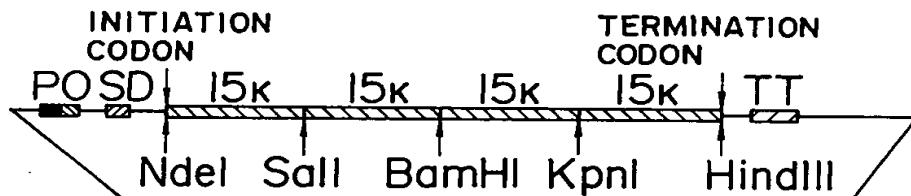
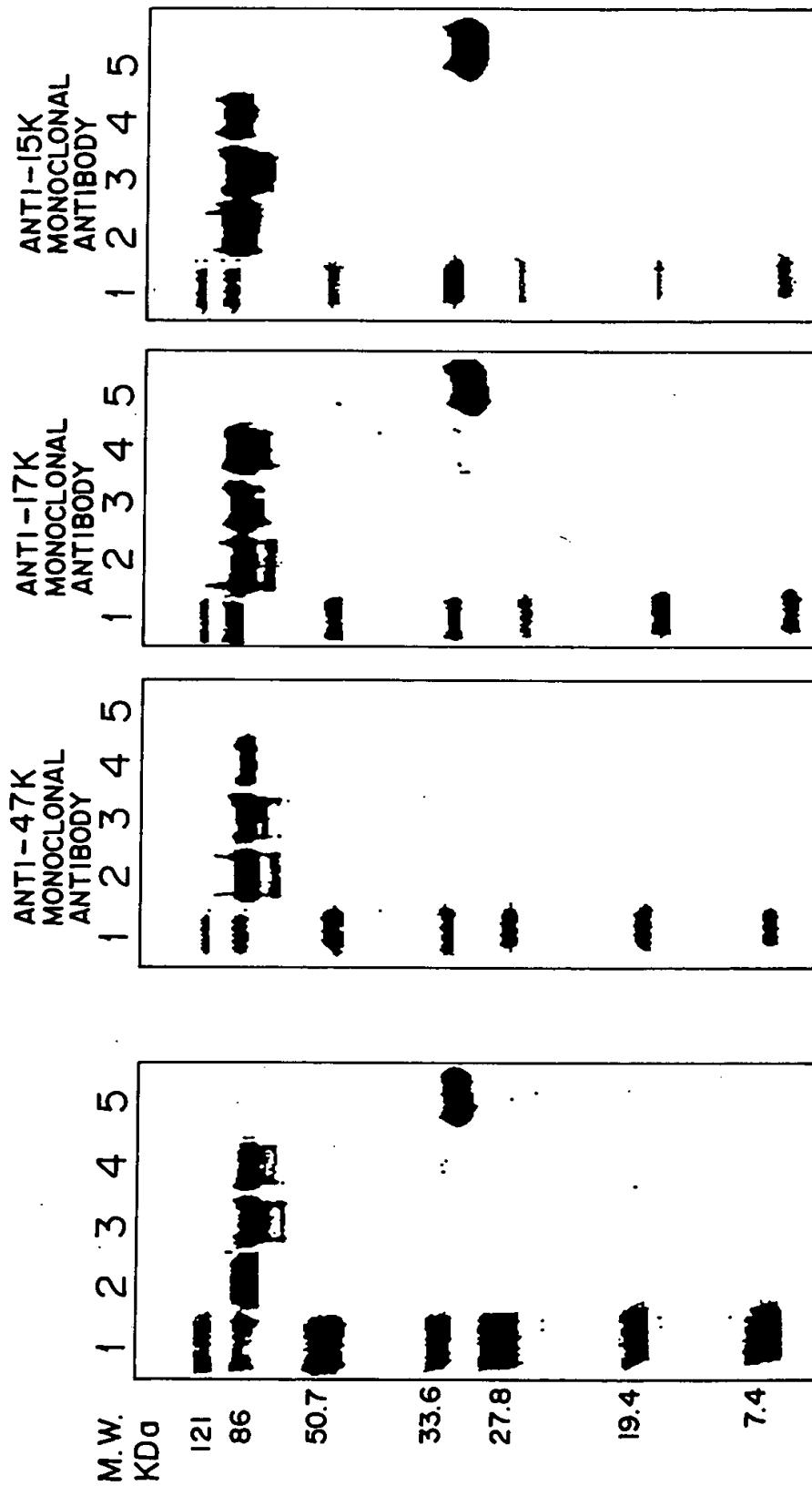


FIG. 7 COOMASSIE STAIN

WESTERN BLOT



LANE 1 : MOLECULAR WEIGHT MARKER

2 : 47-17-15

3 : 47-15-17

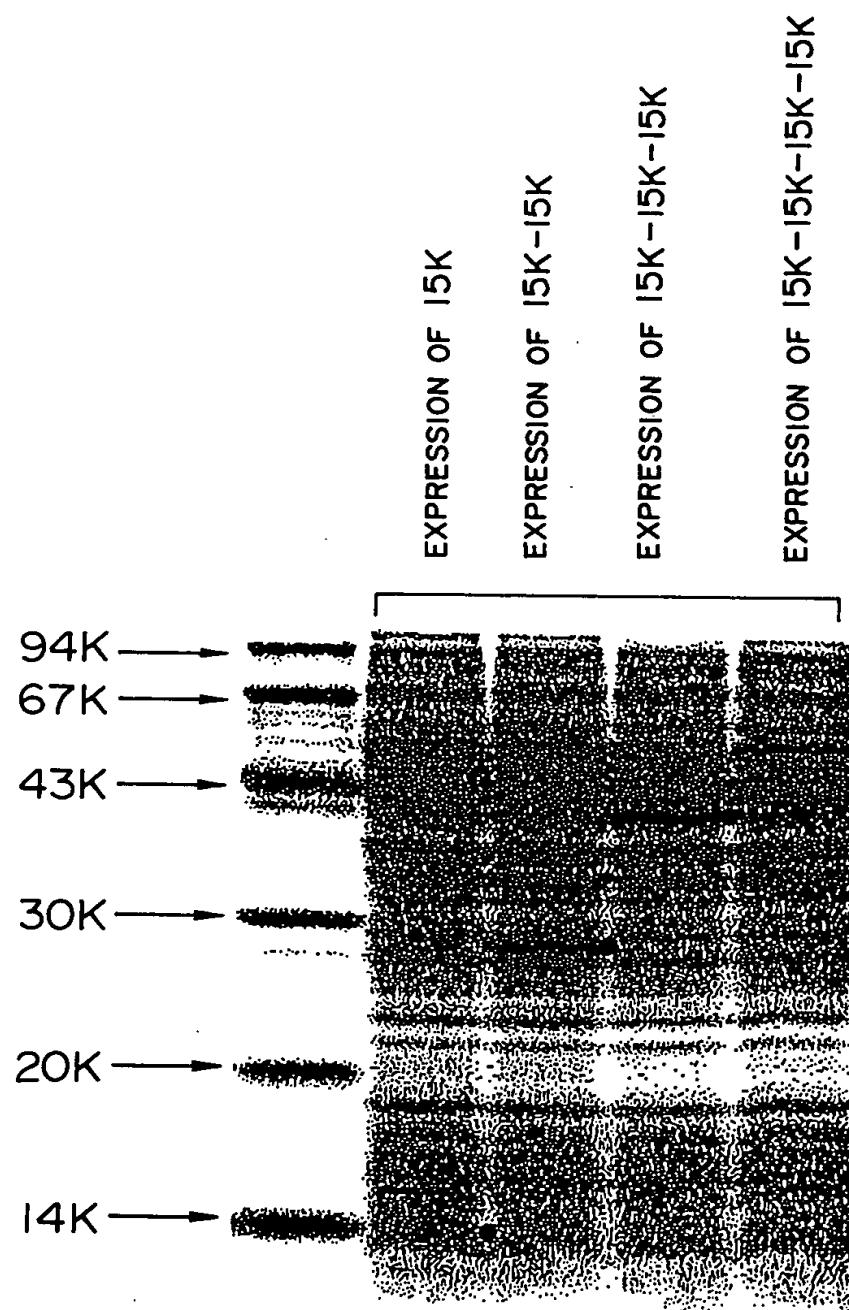
4 : 15-17-47

5 : 15-17

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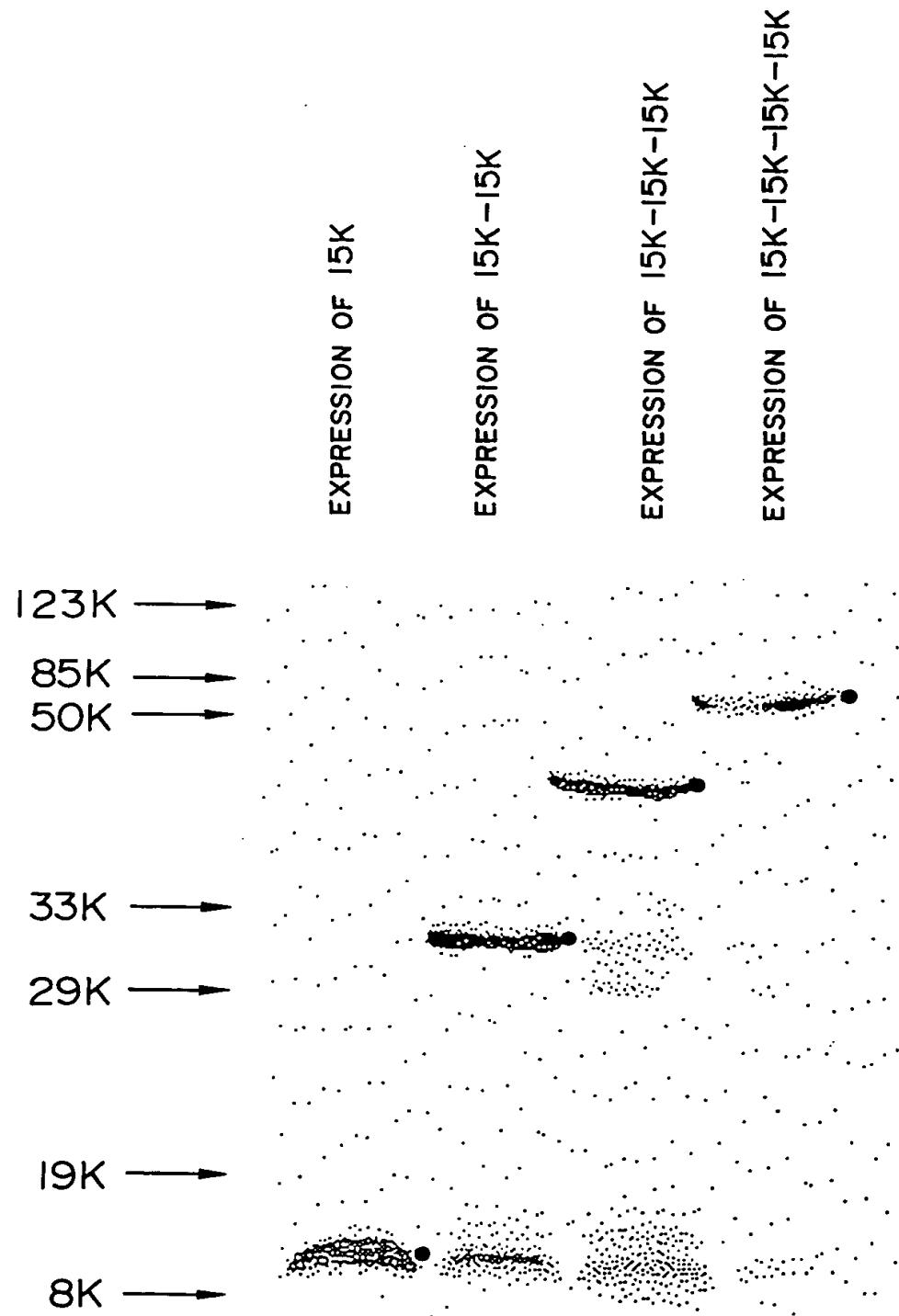
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FIG. 8



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FIG. 9



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EXPRESSION OF
15K-15K-15K-15K

EXPRESSION OF
15K-15K-15K

EXPRESSION OF
15K-15K

EXPRESSION OF 15K

BSA 1.8 μ g/lane

BSA 0.45 μ g/lane

BSA 0.1 μ g/lane

BSA 0.028 μ g/lane

BSA 0.007 μ g/lane

BSA 0.002 μ g/lane

LMW MARKER

ESCHERICHIA COLI LYSATE

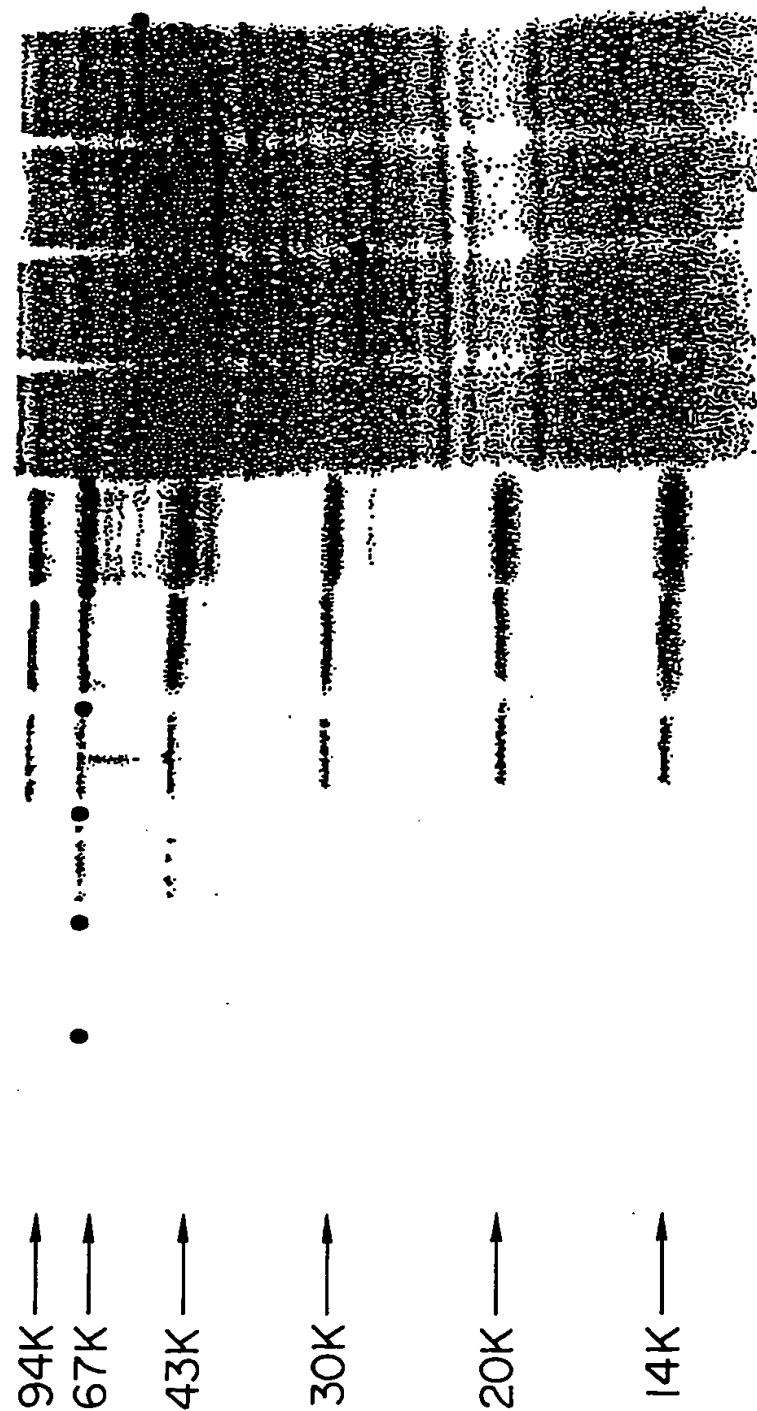


FIG. 10

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FIG. II

